

REMARKS

Claims 1-16 are pending in the present application. The Examiner has rejected claims 1-16.

I. **REJECTION UNDER 35 U.S.C. § 103(a) WITH RESPECT TO CLAIMS 1-16**

Claims 1-16 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,812,531 (“Cheung”) in view of a Bluetooth article or in view of Patent Document No. WO 99/14897 (“Haartsen”). Applicants respectfully traverse the rejection.

A. **CLAIMS 1-5**

Applicants respectfully submit that the combination of Cheung and the Bluetooth article or Haartsen does not teach or suggest each and every element as set forth in claim 1. For example, claim 1 recites “a wireless internetwork path” that includes “one or more wireless connections involving at least one of said first plurality of nodes and at least one of said second plurality of nodes *to the exclusion of said first network access point and said second network access point*” (italics added).

On the other hand, Cheung teaches using access points as “internetworking devices which interconnect a wired LAN and wireless nodes within range of each AP, and for determining when each AP should act to transmit data between the wired LAN and wireless nodes” (see, e.g., Cheung at col. 3, lines 26-30). Cheung also teaches a roaming wireless node. Cheung at col. 11, lines 9-45 states:

FIG. 4 illustrates how a roaming wireless node can move in and out of different APs' BSAs. When a wireless node moves between BSAs of APs, it is deregistered with one AP and registered with another. The data packets sent by the wireless node to the wired LAN are resent by different APs depending on where the wireless node is, and which AP the wireless node is registered with. Likewise, data packets destined for the wireless node are resent by different APs depending on where the wireless node is and which AP the wireless node is registered with.

When a node roams, it may roam out of range from all APs. The wireless node will then be disconnected from the wired LAN until it again becomes registered with some AP. Of course a roaming node can not become registered with an AP until it becomes aware of the presence of the wireless node (ie, overhears either the wireless node's topology broadcast or regular transmission). Optionally, to further shorten the time between the wireless node moving into an AP's BSA and the AP detecting its existence, each wireless node could schedule its topology broadcast earlier when it first overhears an AP.

Referring to FIG. 4 by way of an example, wireless node A originally located at position 200, is registered with AP1. It therefore communicates with wired network node X via AP1. As A moves to an area which is not covered by any AP, as is illustrated as position 210, it is disconnected from the network. Its communication with X is severed until it becomes registered by another AP. Thus when as A moves into AP2's BSA, as shown at 220, and AP2 overhears it. At this point, A can again communicate with X, this time via AP2. AP2 will send a registration notice on the wire LAN, informing other APs, in this case AP1, that AP2 has now registered node A, so that AP1 should deregister it. AP1 may have already deregistered A if AP1 had not heard A after a set period of time. Assuming an entire area is sufficiently covered by APs, A can move around the area while remaining connected to the network.

In summary, Cheung teaches that, when a roaming wireless node moves from a first network characterized by a first access point to a second network characterized by a second access point, the roaming wireless node is deregistered with the first access point, is registered with the second access point and uses the second access point for communications. Thus, a communication destined for the roaming wireless node is sent to the second access point which forwards the communication to the roaming wireless node. Accordingly, Cheung does not teach or suggest a wireless internetwork path including one or more wireless connections *to the exclusion of the first network access point and the second network access point*.

In fact, Cheung teaches away from excluding a network access point from an internetwork path. According to the M.P.E.P. § 2145, “[a] prior art reference that ‘teaches away’ from the claimed invention is a significant factor to be considered in determining obviousness”. For at least the above reasons, an obviousness rejection based, in part, on Cheung cannot be maintained.

Assuming for the sake of argument only that the Bluetooth article or Haartsen teaches “a wireless internetwork path” that includes “one or more wireless connections involving at least one of said first plurality of nodes and at least one of said second plurality of nodes to the exclusion of said first network access point and said second network access point” as alleged by the Examiner by teaching an *ad hoc* connection or a piconet; such a teaching cannot be properly combined with Cheung, since Cheung specifically teaches away from the alleged teachings of the Bluetooth article or Haartsen. According to M.P.E.P. § 2145, “[i]t is improper to combine references where the references teach away from their combination.” See, e.g., M.P.E.P. §

2145(X)(C)(2) under heading “References Cannot Be Combined Where Reference Teaches Away from Their Combination”.

Applicants further submit respectfully that adding the *ad hoc* connection or piconet capabilities of the Bluetooth article or Haartsen would not be advantageous to the teachings of Cheung. After all, if a roaming wireless node moves from a first network to a second network, then, in view of the teachings of Cheung, the roaming wireless node will not use an *ad hoc* connection or a piconet for its internetwork connection. Instead, Cheung teaches that the roaming wireless node is deregistered from the first network, is registered from the second network and uses the access point of the second network for communications. Accordingly, there is no need for an *ad hoc* connection or a piconet to facilitate an internetwork connection. In fact, Applicants respectfully submit that if, as alleged by the Examiner, Cheung used an *ad hoc* connection or a piconet, instead of its registration/deregistration process, then the principle of operation of Cheung would be substantially changed. According to M.P.E.P. § 2143.01, “[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.”

For at least the above reasons, Applicants respectfully submit that the combination of Cheung and the Bluetooth article or Haartsen is improper and that a *prima facie* case of obviousness has not been presented with respect to claim 1 and its dependent claims (i.e., claims 2-5). It is respectfully requested that the rejection under 35 U.S.C. § 103(a) be withdrawn with respect to claims 1-5.

B. CLAIMS 6-16

As shown below, claims 6-16 recite elements that are similar in language to some elements recited in claim 1.

Claim 6 recites a “wireless internetwork path including one or more wireless connections involving at least one of said first plurality of wireless nodes and at least one of said second plurality of wireless nodes *to the exclusion of said first network access point and said second network access point*” (italics added).

Claims 7-10 recite, directly or indirectly through dependence, a “wireless internetwork path” that “includes a wireless connection between at least one of said first plurality of wireless

nodes and at least one of said second plurality of wireless nodes *to the exclusion of said first network access point and said second network access point*" (italics added).

Claims 11-13 recite, directly or indirectly through dependence, a "wireless internetwork path including one or more wireless connections involving at least one of said first plurality of nodes and at least one of a second plurality of nodes of a second wireless network wherein said one or more wireless connections are defined *to the exclusion of a first network access point associated with said first wireless network and a second network access point associated with said second wireless network*" (italics added).

Claims 14-16 recite, directly or indirectly through dependence, "a wireless internetwork path including one or more wireless connections involving at least one of said first plurality of wireless nodes and at least one of a second plurality of wireless nodes of said second wireless network wherein said one or more wireless connections are defined *to the exclusion of a first network access point of said first wireless network and a second network access point of said second wireless network*" (italics added).

Accordingly, Applicants respectfully submit that similar arguments be made with respect to claims 6-16 as were made with respect to claims 1-5. For at least the above reasons, Applicants respectfully submit that the combination of Cheung and the Bluetooth article or Haartsen is improper and that a *prima facie* case of obviousness has not been presented with respect to claim 6-16. It is respectfully requested that the rejection under 35 U.S.C. § 103(a) be withdrawn with respect to claims 6-16.

II. **CONCLUSION**

In view of at least the foregoing, it is respectfully submitted that the pending claims 1-16 are in condition for allowance. Should anything remain in order to place the present application in condition for allowance, the Examiner is kindly invited to contact the undersigned at the below-listed telephone number.

Please charge any required fees not paid herewith or credit any overpayment to the Deposit Account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

Dated: July 9, 2004

Respectfully submitted,

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